

STATEMENT OF WORK
Pond Sealing or Lining, Compacted Clay Treatment (521D)
Michigan

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

Specific responsibility for the deliverables depends on the source of engineering technical assistance to NRCS-Michigan customers. Responsibilities for the four available sources of engineering assistance are described in [NRCS-Michigan Roles and Responsibilities for Engineering Technical Assistance](#).

DESIGN

Deliverables:

1. Design documents that demonstrate criteria in NRCS practice standard have been met and are compatible with planned and applied practices
 - a. Practice purpose(s) as identified in the conservation plan.
 - b. List of required permits to be obtained by the client and regulations to be met
 - c. Compliance with state utility safety policy.
 - d. List of facilitating practices
 - e. Practice standard criteria-related computations and analyses to develop plans and specifications including but not limited to:
 - i. Hydrogeology
 - ii. Type of Liner
 - iii. Application Rate and/or Liner Thickness.
 - iv. Compaction test and permeability test of soil liner material
 - v. Structural, mechanical and appurtenances
 - vi. Liner Protection.
2. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits. The Construction drawings must include the notes shown on page 2 of the NRCS-Michigan standard drawing cover sheet ([8½ x 11](#)).
3. Operation and maintenance plan
4. Certification that the design meets practice standard criteria and comply with applicable laws and regulations
5. Design modifications during installation as required

INSTALLATION

Deliverables

1. Pre-installation conference with client
2. Verification that client has obtained required permits
3. Staking and layout according to plans and specification including applicable layout notes
4. Installation guidance as needed
 - a. Actual materials used
 - b. Inspection records
5. *Documentation of liner construction (a and/or b is acceptable)*
 - a. *Documentation of soil liner density and moisture content during construction related to the design compaction test and permeability.*
 - i. *Documentation that soil liner material used during construction is the same as design soil liner material.*
 - b. *Documentation of permeability of in place soil liner.*
6. Facilitate and implement required design modifications with client and original designer
7. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation
8. Certification that the installation process and materials meets design and permit requirements

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CHECK OUT

Deliverables

1. As-built documentation
 - a. Extent of practice units applied
 - b. As-Built Drawings
 - c. Final Quantities
2. Certification that the application meets NRCS standards and specifications and is in compliance with permits
3. Progress reporting

REFERENCES

- NRCS-Michigan Field Office Technical Guide ([FOTG](#)), Section IV, Conservation Practice Standard – Pond Sealing or Lining, Compacted Clay Treatment (521D)
- NRCS Agricultural Waste Management Field Handbook ([AWMFH](#))
- NRCS National Engineering Manual ([NEM](#))
- [NRCS-Michigan Operation and Maintenance Plans](#)
- [NRCS-Michigan Construction Specifications](#)
- [Michigan Climate Information](#)
- National Engineering Handbook ([NEH](#))
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook